



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,542	08/13/2001	Hieu Van Tran	2102397-991720	9808

26379 7590 08/27/2002

GARY CARY WARE & FREIDENRICH LLP
1755 EMBARCADERO ROAD
PALO ALTO, CA 94303-3340

EXAMINER

DINH, SON T

ART UNIT	PAPER NUMBER
----------	--------------

2824

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/929,542 ;		TRAN ET AL.	
	Examiner		Art Unit	
	son t dinh		2824	

-- Th MAILING DATE of this communication app ars on th cov r she t with th corr spondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-83 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 10-28, 30-35 and 43-81 is/are allowed.
- 6) ☒ Claim(s) 4-7, 29, 36-39, 40-42, 53, 82-83 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Art Unit: 2824

DETAILED ACTION

The amendment B filed on 7/22/02 has been entered.

Claims 4-83 are pending in the application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 4-7, 9, 29, 36-39, 53 and 82-83 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsen (US Patent No 5,936,906).

Figure 2 of Tsen discloses a memory device comprising a plurality of memory cell arrays (100), a reference cell array (110), and at least one memory decoder (102 or 104) coupled to the memory arrays.

With respect to claims 7 and 82-83, bit line decoder 104 (or memory decoder) would be a first address decoder coupled to the bit lines.

Claim Rejections - 35 USC § 103

Art Unit: 2824

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsen in view of Banks (US Patent No 6,002,614).

The difference between Tsen and claims 40-42 is that Tsen fail to disclose a memory device that comprises a driver circuit which includes a latch connected to the bit lines. It is noted the sense amplifier in both Tsen and Banks would perform the function of comparing data on the bit lines and data in the reference cells

Banks teaches that the use of a driver circuit which comprises a latch connected to the bit lines so as to latch data in the memory device operation is well known in the art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tsen by using a driver circuit that includes a latch connected to the bit line in order to latch input/output data in the memory device as taught by Banks.

Allowable Subject Matter

5. Claims 8, 10-28, 30-35, 43-81 are allowed.

Art Unit: 2824

Response to Arguments

It is argued that the references of Tsen and Banks fail to disclose a plurality of multidimensional memory arrays as recited in claim 4. However, such feature is clearly shown in Tsen and Bank. Note that the memory cell array in both Tsen and banks is multilevel digital data i.e. multidimensional memory arrays. Therefore, the applicant argument is not persuasive.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Dinh whose telephone number is (703) 308-4120. The examiner can normally be reached on Monday through Friday from 8am to 4pm.

Art Unit: 2824

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms, can be reached on (703) 308-2816. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Son T. Dinh
Primary Examiner

S. Dinh

August 23, 2002